

REMARKS

Claims 1-26 remain pending in the application. Claims 1-10, 12, 13, 15-18 and 20-26 have been rejected, and Claims 11, 14 and 19 have been objected to. Applicants respectfully request favorable reconsideration in view of the following remarks.

I. FINALITY OF OFFICE ACTION

The Applicants respectfully submit that the pending Office Action is prematurely final. More specifically, in the previous Office Action mailed on February 22, 2006, Independent Claim 22 was rejected as anticipated by Gale (US Patent No. 5,285,407). In the pending Office Action, however, that same Claim 22 is now rejected for obviousness over Gale in view of JP 07-177041. The MPEP states, at § 706.07(a), that "second or any subsequent actions on the merits shall be final, *except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p)*" (italics added). Thus, the MPEP provides a two-pronged exception to the normal rule that second or subsequent actions are final. Both prongs must be satisfied in order to invoke this exception to finality.

The pending Office Action alleges on page 7 that the present situation does not meet the exception because the first prong is not satisfied, that is, "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action." This allegation is incorrect. The new ground of rejection for independent Claim 22 could not have been necessitated by Applicants' amendment of Claim 22, because Applicants did not amend

Claim 22 in response (see Applicants' amendment mailed on May 22, 2006) to the aforementioned February 22, 2006 Office Action. (In fact, independent Claim 22 has never been amended, and thus still remains pending as originally filed.) Accordingly, the new ground of rejection for Claim 22 clearly meets the first prong of the above-quoted MPEP exception to finality.

The following points are also noted: (1) Independent Claim 1 was amended in response to the February 22 Office Action; (2) the pending Office Action applies to Claim 1 a new ground of rejection that is alleged to be necessitated by the amendment of Claim 1; and (3) the same new ground of rejection applied to Claim 1 in the pending Office Action has also been applied to Claim 22 in the pending Office Action. None of the aforementioned points (1), (2) or (3) is relevant to the issue of whether the new ground of rejection for independent Claim 22 meets the first prong of the MPEP exception to finality. The determinative fact for this issue is: (4) Independent Claim 22 is subject to a new ground of rejection that was not necessitated by any amendment to any claim. Accordingly, making the new ground of rejection for Claim 22 final is manifestly unfair to the Applicants, who have never amended Claim 22.

The second prong of the above-quoted MPEP exception to finality is also clearly met under the present circumstances. More particularly, the new ground of rejection of Claim 22 is based on a previously-applied reference, Gale, and a reference, JP 07-177041, that has been newly-cited by the PTO in the pending Office Action.

In view of the foregoing, Applicants respectfully request withdrawal of the finality of the pending Office Action.

II. ALLOWABLE SUBJECT MATTER

The Applicants thank the Examiner for the indication that Claims 11, 14 and 19 would be allowable if rewritten in independent form to incorporate the elements of the base claims and any intervening claims. However, since the Applicants believe that the remaining claims in this application are patentable, the Applicants have not at this time elected to rewrite Claims 11, 14 and 19 in independent form.

III. 35 U.S.C. § 103 REJECTIONS

Claims 1-10, 12, 13, 15-18 and 20-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gale (US Patent No. 5,285,407) in view of JP 07-177041. These rejections are respectfully traversed for the following exemplary reasons.

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2142.

Independent Claim 22 recites “*loading data representing an image into memory elements in communication with respective light modulation elements; altering ones of the light modulation elements in response to the data loaded thereunto to transfer the image onto a substrate; shifting the data between the memory elements; altering ones of the light modulation elements in response to the data shifted thereunto to transfer the image onto the*

substrate.” The Applicants respectfully submit that these features are not taught or suggested by any combination of teachings from Gale or JP 07-177041.

Referring to Gale Figures 1 and 3, data representing an image is shifted into a shift register 12, then loaded from the shift register 12 into a latch 13, and then transferred from the latch 13 into an array 30 of memory elements 32. The memory elements 32 are in communication with spatial light modulators arranged in an array 10. Gale uses the spatial light modulators to transfer the image from the memory element array 30 onto the desired medium.

Gale simply does not teach or suggest transferring the image onto the medium twice, as quoted above from Claim 22. Applicants’ previous amendment of May 22, 2006 contained this same traversal, presented to overcome the use of Gale against Claim 22 in the previous Office Action of February 22, 2006. However, the pending Office Action does not even address the traversal from the May 22 amendment. Rather, the pending Office Action again repeats the allegation from the February 22 Office Action that Gale teaches the feature of twice transferring the image onto the medium. Moreover, the pending Office Action presents this allegation in identically the same cursory fashion as it was presented in the February 22 Office Action, without any explanation of how it can be true that Gale actually does teach the very claim feature that Applicants simply cannot find in Gale. Section 707.07(f) of the MPEP provides, “Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant’s argument and answer the substance of it.” The pending Office Action is therefore deficient by failing to answer the substance of Applicants’ aforementioned prior traversal (also presented again herein) of the use of Gale against Claim 22. Applicants respectfully request that the next Office Action either cure this deficiency, or withdraw the § 103 rejections of Claims 22-26.

Returning to the content of the Gale reference, Gale also fails to teach shifting the image data between memory elements that are in communication with light modulation elements, as quoted above from Claim 22. The pending Office Action admits that Gale does not teach this feature, but maintains that JP 07-177041 teaches it, and that it would have been obvious at the time of the invention to modify Gale to incorporate it. In particular, the pending Office Action alleges with respect JP 07-177041 that light modulation elements are shown at 22, that shiftable memory elements are shown at 43 and 44, and that the light modulation elements 22 are in communication with the shiftable elements 43 and 44. Paragraphs 0019 and 0021 of JP 07-177041 are cited to support these allegations.

Applicants are not capable of translating the Japanese language text of JP 07-177041 into English, and therefore cannot comment on the content of paragraphs 0019 and 0021. If the PTO is capable of translating Japanese into English, then Applicants respectfully request that an English translation of at least paragraphs 0019 and 0021 be entered into the record.

Without an English translation in the record, Applicants submit that only evidence gleaned from observing the drawings of JP 07-177041 can properly be relied upon to determine the content of JP 07-177041. Figure 1 appears to be at least consistent with a guess that 43 and 44 represent shiftable memory elements. With respect to item 22, Figure 8 does not explicitly negate the possibility that 22 represents light modulation elements as alleged. Nevertheless, Applicants do not see where JP 07-177041 shows that item 22 is in communication with items 43 or 44. Applicants respectfully request that the next Office Action either point out clear and convincing evidence that substantiates such communication, or withdraw the § 103 rejections of Claims 22-26.

Furthermore, Applicants note that Figure 8 of JP 07-177041 can also be seen as consistent with an arrangement very similar to Gale's. For example, if in Figure 8, item 23

represents an array of light modulation elements (or an array of memory elements in communication with an array of light modulation elements), item 22 represents a data latch circuit, and item 21 represents a data shift circuit, then JP 07-177041 teaches nothing more than Gale's arrangement as described above. As admitted in the pending Office Action, Gale's arrangement does not include the Claim 22 feature of shifting image data between memory elements that are in communication with light modulation elements.

In view of the foregoing discussion, Applicants submit that the pending Office Action fails to provide clear and convincing evidence that JP 07-177041 teaches the Claim 22 feature of shifting image data between memory elements that are in communication with light modulation elements. Accordingly, the Office Action fails to establish a *prima facie* case of obviousness, and the § 103 rejections of Claims 22-26 are overcome.

Furthermore, Applicants submit that, even assuming (hypothetically and for purposes of exposition only) that JP 07-177041 does teach the Claim 22 feature of shifting image data between memory elements that are in communication with light modulation elements, it would nevertheless not have been obvious at the time of the invention to modify Gale to incorporate that feature. More specifically, at lines 17-21 of column 4, Gale states "After shift register circuit 12 is loaded, it transfers its row of data to latch circuit 13. While data is latched and is subsequently being stored in a selected row of array 10, a next row of data may be loaded into shift register circuit 12." Gale thus teaches that the latch circuit 13 isolates the data shifting operation of the shift register circuit 12 from the spatial light modulators in order to permit shifting in one row of data while another row of data is being applied to the spatial light modulators. Gale therefore teaches away from the Claim 22 feature of shifting image data between memory elements that are in communication with light modulation elements. If Gale were modified to place the shift register circuit into communication with

the spatial light modulators, Gale's above-quoted operation would not be possible, thus contradicting Gale's teaching and frustrating Gale's intended operation. Accordingly, the proposed modification of Gale in view of JP 07-177041 is refuted, and the § 103 rejections of Claims 22-26 are therefore overcome.

Independent Claim 1 recites "*memory elements configured to store data therein and shift data therebetween; and light modulation elements respectively in communication with the memory elements, wherein each of the light modulation elements is alterable in response to data stored in the respectively corresponding memory element.*" The Applicants respectfully submit that these features are not taught or suggested by any combination of teachings from Gale or JP 07-177041. As explained in detail above with respect Claim 22, Gale and JP 07-177041 both fail to teach the claimed feature of shifting data between memory elements that are in communication with light modulation elements, and even if JP 07-177041 did teach that feature, nevertheless Gale explicitly teaches away from incorporating such a feature into his arrangement. The § 103 rejections of Claims 1-10, 12, 13, 15-18, 20 and 21 are therefore overcome.

For the exemplary reasons set forth above, the Applicants respectfully request that the Examiner withdraw the § 103 rejections of Claims 1-10, 12, 13, 15-18 and 20-26.

III. CONCLUSION

As a result of the foregoing, all Claims in the Application are now believed to be in condition for allowance, and an early allowance of such Claims is respectfully requested.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number or email address indicated below.

Respectfully submitted,

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